

What is claimed is:

1. A computer-readable storage medium on which
is recorded a program for causing a computer, which
5 obtains resistance of a conductor in consideration of
a skin effect according to a frequency of a given signal,
to execute a process, the process comprising:

generating a model where a conductor is divided
by a plurality of faces parallel to a surface of the
10 conductor, which are set so that intervals of the faces
are smaller as the faces are nearer to the surface, and
larger as the faces are farther from the surface;

calculating resistance of the conductor, which
corresponds to the frequency, by using a generated
15 model; and

outputting a calculation result.

2. The computer-readable storage medium
according to claim 1, wherein
20 the computer generates a model where the intervals
of the plurality of faces vary according to a depth of
a skin.

3. The computer-readable storage medium
25 according to claim 1, the process further comprising

calculating a skin resistance coefficient of the conductor by using the generated model, and outputting an obtained skin resistance coefficient.

- 5 4. A computer-readable storage medium on which
is recorded a program for causing a computer, which
obtains resistance of a conductor in consideration of
a skin effect according to a frequency of a given signal,
to execute a process, the process comprising:
- 10 calculating a depth of a skin by using the
frequency;
- generating a model where a depth from a surface
of a conductor is represented by a product of the depth
of the skin and a division rate, a signal conductor is
- 15 vertically and horizontally divided by a plurality of
faces parallel to a surface of the signal conductor,
which are set with a plurality of division rates so that
intervals of the faces are smaller as the faces are
nearer to the surface of the conductor and larger as
- 20 the faces are farther from the surface, a ground
conductor is vertically divided by a plurality of faces
parallel to a surface of the ground conductor, which
are set by using the plurality of division rates, and
the ground conductor is horizontally divided by a
- 25 plurality of faces which are set based on a distance

between the signal conductor and the ground conductor;
calculating resistance of the signal conductor,
which corresponds to the frequency, by using a generated
model; and

5 outputting a calculation result.

5. A propagation signal propagating a program
to a computer which obtains resistance of a conductor
in consideration of a skin effect according to a
10 frequency of a given signal, the program causing the
computer to perform:

generating a model where a conductor is divided
by a plurality of faces parallel to a surface of the
conductor, which are set so that intervals of the faces
15 are smaller as the faces are nearer to the surface, and
larger as the faces are farther from the surface;

calculating resistance of the conductor, which
corresponds to the frequency, by using a generated
model; and

20 outputting a calculation result.

6. A propagation signal propagating a program
to a computer which obtains resistance of a conductor
in consideration of a skin effect according to a
25 frequency of a given signal, the program causing the

computer to perform:

calculating a depth of a skin by using the frequency;

generating a model where a depth from a surface
5 of a conductor is represented by a product of the depth
of the skin and a division rate, a signal conductor is
vertically and horizontally divided by a plurality of
faces parallel to a surface of the signal conductor,
which are set with a plurality of division rates so that
10 intervals of the faces are smaller as the faces are
nearer to the surface of the conductor and larger as
the faces are farther from the surface, a ground
conductor is vertically divided by a plurality of faces
parallel to a surface of the ground conductor, which
15 are set by using the plurality of division rates, and
the ground conductor is horizontally divided by a
plurality of faces which are set based on a distance
between the signal conductor and the ground conductor;

calculating resistance of the signal conductor,
20 which corresponds to the frequency, by using a generated
model; and

outputting a calculation result.

7. A calculation method obtaining resistance
25 of a conductor in consideration of a skin effect

according to a frequency of a given signal, comprising:

setting a plurality of faces parallel to a surface
of a conductor so that intervals of the faces are smaller
as the faces are nearer to the surface, and larger as
5 the faces are farther from the surface;

generating a model where the conductor is divided
by the plurality of faces; and

calculating resistance of the conductor, which
corresponds to the frequency, by using a generated
10 model.

8. A processing device obtaining resistance of
a conductor in consideration of a skin effect according
to a frequency of a given signal, comprising:

15 a generating device generating a model where a
conductor is divided by a plurality of faces parallel
to a surface of a conductor, which are set so that
intervals of the faces are smaller as the faces are
nearer to the surface, and larger as the faces are
20 farther from the surface;

a calculating device calculating resistance of
the conductor, which corresponds to the frequency, by
using a generated model; and

an outputting device outputting a calculation
25 result.